Supporting Information

Survival of phenotypic information during cellular growth transitions

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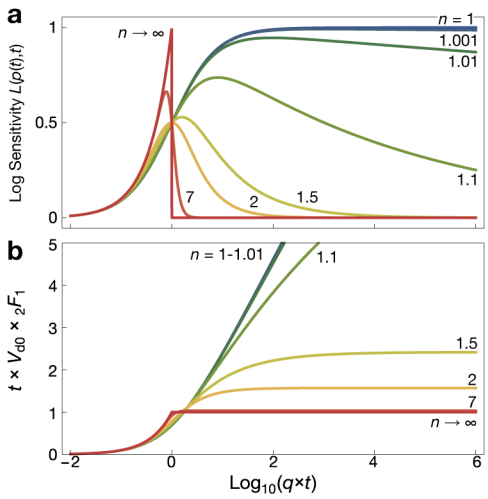

Figure S1. Effects of changing the steepness parameter in the growth arrest rate, n, on protein dynamics with negligible growth-independent protein loss ($\delta = 0$). **a.** Logarithmic change in protein concentration over time for various values of steepness parameter n. **b.** Behavior of the generalized growth-mediated dilution term, $tV_{d0}\,{}_2\mathrm{F}_1\left(1,\frac{1}{n};1+\frac{1}{n};-(qt)^n\right)$, for various values of n.

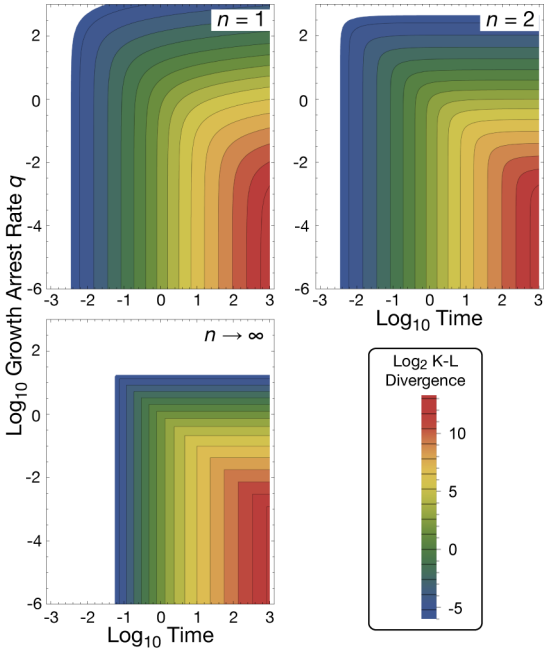

Figure S2. Kullback-Leiber divergence, in units of bits, for $n = 1$, 2, and $n \to \infty$. White regions, $D < 2^{-6} = 1/64$. Computed from Eqn. (9) for a gamma distribution. For sufficiently sharp and fast growth arrest transitions, the divergence is negligible, or stops increasing at low values, as protein turnover is halted.